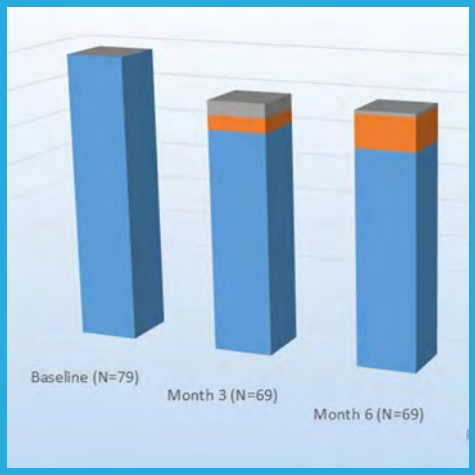

PROJECT mHEALTH

Medical Home Engagement and Aligning Lifestyles and Transition from Homelessness

Yale University School of Medicine AIDS Program
Liberty Community Services
Connecticut Department of Correction

Creating a medical home for people living with HIV who are experiencing homelessness in New Haven, CT

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PROJECT MHEALTH (MEDICAL HOME ENGAGEMENT AND ALIGNING LIFESTYLES AND TRANSITION FROM HOMELESSNESS) AT A GLANCE

Yale University School of Medicine AIDS Program (YAP), coordinated with Liberty Community Services (LCS) and Connecticut Department of Correction (CTDOC), New Haven CT

Geographic description: New Haven, CT, with a population of 130,282 (2014), is the 4th poorest city in the U.S. for its size and has been in economic decline since the 1960s. High rates of poverty, homelessness, unemployment, illegal activity resulting in incarceration, substance use, and HIV/AIDS are common challenges.

Main challenges for this project: Poor and unstably housed people living with HIV/AIDS experience poor HIV treatment outcomes compared to their housed counterparts

Focus population: People who are experiencing homelessness/unstable housing and living with HIV, primarily those who are transitioning from the criminal justice system and those not retained in HIV care.

Description of the model: This project sought to demonstrate use of a patient-centered medical home (PCMH) for PLWHA who are experiencing homelessness. This PCMH incorporated increased coordination and referrals between the criminal justice system, a mobile van-based early intervention services, and the city's largest housing provider for PLWHA. It introduced into the care team a network and peer navigator to provide intensive case management to retain individuals with mental illness and chronic homelessness in health care.

Project staff:
Yale staff: part-time principal investigator, part-time project manager, part-time clinical coordinator, part-time research assistant, part-time local evaluator, part-time data manager;
Liberty Community Services (LCS) staff: part-time coordinator, part-time peer navigator, part-time network navigator;
Connecticut Department of Correction (CTDOC) staff: part-time referrals coordinator

Clients served: 79

Results: YAP, LCS, and the CTDOC have built on the foundation of years of experience enhancing services for people who are experiencing homelessness and at risk of or living with HIV. The cooperative efforts of the YAP and the Community Health Care Van, combined with collaboration from LCS and the CTDOC created a patient-centered medical home without walls and with improved integrated services that addressed mental health and substance use disorders, leading to greater continuity of care and improved health outcomes. Strengthened partnerships within the community have enhanced services to PLWHA in the New Haven area. As of June 2017, a total of 79 clients received services, and 54 obtained housing through PROJECT mHEALTH. Of those who were housed, 72% had suppressed viral load.

ABOUT THE SPNS INITIATIVE

Building a Medical Home for Multiply Diagnosed HIV-Positive Homeless Populations, 2012-2017

People who are experiencing homelessness are disproportionately affected by HIV, and those who are also living with HIV are more likely to delay entering care, have poorer access to HIV care, and are less likely to adhere to antiretroviral therapy. In 2012, the Health Resources & Services Administration (HRSA), HIV/AIDS Bureau through its Special Projects of National Significance (SPNS) Program* funded a national initiative with the goal of building a medical home for a vastly underserved population: those who are experiencing homelessness or unstable housing, living with HIV, and who face challenges of mental health or substance use disorders. Nine clinic and community-based organizations and one multisite coordinating center were funded to implement and evaluate service delivery models for this population. The two main goals of the models were to 1) increase engagement and retention in HIV care and treatment; and 2) improve housing stability. While each model was tailored to the environment in which it existed and the needs of the specific population served, the nine models all created a role of care coordinator/patient navigator who worked with clients to access a networked system of services among HIV, housing, and behavioral health care providers. To measure achievement of project goals, the nine programs conducted a longitudinal multi-site evaluation study of the models.

Yale University School of Medicine was one of the nine demonstration sites funded under this initiative. This manual describes their experience implementing and evaluating PROJECT mHEALTH.

For more information about the initiative, visit http://cahpp.org/project/medheart/

*The Special Projects of National Significance (SPNS) Program is charged with the development of innovative models of HIV treatment, in order to quickly respond to emerging needs of clients served by Ryan White HIV/AIDS Programs. SPNS advances knowledge and skills in the delivery of health and support services to underserved populations diagnosed with HIV. Through demonstration projects such as the initiative that gave rise to the mHEALTH project, SPNS evaluates the design, implementation, utilization, cost, and health-related outcomes of treatment models, while promoting dissemination and replication of successful interventions. Learn more at https://hab.hrsa.gov/about-ryan-white-hivaids-program/part-f-special-projects-national-significance-spns-program

INTRODUCTION

About PROJECT mHEALTH

PROJECT mHEALTH (**M**edical **H**ome **E**ngagement and **A**ligning **L**ifestyles and **T**ransition from **H**omelessness) represents an innovative model of care that deploys evidence-based interventions and adapts them to enhance services within an existing New Haven Ryan White Continuum (NHRWC). The aim is to create a Patient-Centered Medical Home (PCMH) without walls for people who are experiencing homelessness and living with HIV/AIDS (PLWHA) in New Haven, CT. (See the Eligibility section on pg. 21 for details about the focus population.) The PROJECT mHEALTH model includes each of the following:

1. Intensive care coordination through the current Ryan White Early Intervention Specialists (EIS) to identify individuals not retained in care in the RW Continuum;
2. Creation and enhancement of sustainable partnerships of the existing NHRWC by adding a new collaboration with the Connecticut Department of Correction (CTDOC) and the city's largest Housing & Urban Development (HUD) provider for housing for PLWHA, Liberty Community Services (LCS), that provides housing coordination and peer navigation
3. The ability to fully engage and retain homeless PLWHA in quality HIV primary care, mental health and substance use treatment
4. Facilitation of increased access to stable/permanent housing for PLWHA who are transitioning from the criminal justice system (CJS), such as prison/jail.

Challenges Faced in New Haven

New Haven, the 4th poorest city in the U.S. for its size, has been in economic decline since the 1960s. The suburbanization of the surrounding communities has resulted in an inner city without an economic base, resulting in high rates of poverty, homelessness, unemployment, and illegal activity resulting in incarceration, substance use and HIV/AIDS. Though many initiatives are underway, there is a vast inadequacy in the availability of services, including too few: 1) drug treatment slots for the estimated 16,500 individuals with heroin or cocaine use; and 2) housing options for the unstably housed population. Moreover, the city has grappled with the management of the dually and triply diagnosed patient – these individuals often present repeatedly in the emergency room with acute and chronic medical and psychiatric conditions, and often with advanced

disease. These comorbid conditions converge with homelessness, which remains a serious problem within the city.

People who misuse substances, those who face mental health disorders, those who have recently been incarcerated, and people living with HIV/AIDS (PLWHA) are overrepresented among this population. Thus, there is an increasing need to address this often difficult-to-reach and retain population. In the mHEALTH model, we expanded and enhanced services for PLWHA who are about to or who have recently been released from criminal justice system (CJS) settings and anticipate unstable housing, as well as other chronically homeless PLWHA in New Haven. CJS settings disproportionately house individuals living with or at risk for HIV, particularly those with mental illness and substance use disorders (SUDs). These individuals seldom have a continuity-of-care plan that is designed to reduce drug use, stabilize mental illness and reduce the risk of primary or secondary transmission of HIV. PLWHA within the CJS experience higher rates of opioid dependence, mental illness, and homelessness prior to incarceration. This population has few options upon community release where they face daily struggles with basic needs including shelter, employment, health insurance, access to medical care, and concerns about relapse to drug use. In particular, housing has been identified as a significant issue for PLWHA who are being released from correctional settings. Through Ryan White funded services, HOPWA, and state funds, New Haven has developed a continuum of housing for PLWHA that includes shelter, transitional, and permanent housing. Yet people leaving prison and jail are often underserved because of the challenges of housing placement (criminal backgrounds), addictive behaviors, lack of income, unpredictable timing of release from prison, and HUD's definition of homelessness, which often limits housing to chronically homeless and excludes people who are released from the CJS. The development of more housing options for released prisoners has been identified as one of New Haven's highest priorities for reducing homelessness.

> In the mHEALTH model, we expanded and enhanced services for people living with HIV who are about to or who have recently been released from criminal justice system (CJS) settings. This population has few options upon community release where they face daily struggles with basic needs including shelter, employment, health insurance, access to medical care, and concerns about relapse to drug use.
>
> - Project mHEALTH staff

The statewide HIV services planning council has prioritized prison and jail inmates as an important target population because they are more likely to be homeless and have significant medical comorbidities. As such, development of coordinated services has become a high priority. Although there are numerous clinical sites in the New Haven Ryan White EMA that provide care to PLWHA, there are many clients who are newly diagnosed or who have fallen out of care, and there is a need for Early Intervention Services (EIS) to keep them engaged in care. Moreover, the groups most in need of assistance with health care engagement are those who experience worse outcomes, including people who are homeless, people who inject drugs, the mentally ill, and recently released prisoners.

The Big Blue Bus

It's almost impossible to miss from the road, the big blue bus. It bears big yellow letters that read "Community Health Care Van: We're a Part of Your Neighborhood", and its generator hums the righteous tune of health care. The big blue bus has been a staple in New Haven for over 20 years, though it never remains in one place. For good reason, this medical home without walls is the centerpiece of PROJECT mHEALTH, and it will continue to inhabit New Haven as the community's champion for providing patient-centered services to the neediest residents of the city.

For the residents of New Haven, many of whom do not have sufficient means to obtain transportation or insurance, the Community Health Care Van (CHCV) is a "one-stop shop." The services stretch from harm reduction to primary health care and are available to all residents, regardless of ability to pay. The nature of the clients served is ever encompassing, be they an individual seeking confidential testing of HIV, Hepatitis C Virus, or another, or someone with little to no English language skills seeking medical treatment. The CHCV staff are available and eager to accommodate all clients in a professional, non-judgmental and non-discriminatory manner. The staff include a nurse practitioner, outreach workers, and behavioral health specialists, including a psychiatric nurse practitioner and a licensed clinical social worker. This multidisciplinary team has the specialized skills needed to provide a range of services for all clients, including medical care, psychiatric evaluations and treatment, substance use counseling, and medically assisted therapies for addictions (eg,, buprenorphine and extended-release Naltrexone).

Clients such as those in PROJECT mHEALTH may lead chaotic lives and lack many of the resources necessary to schedule and manage appointments. Therefore, the CHCV provides walk-in hours in a range of neighborhoods throughout the city. For those clients who need assistance with taking medications on a regular basis, the van offers directly observed therapy (DOT) to ensure they are receiving and taking their medications routinely. Clients consistently report they trust the CHCV staff and they are able to form close relationships with them, a huge asset in engagement in care. Clients are also able to obtain medical and behavioral health care at our "storefront" office, an extension of the CHCV, located in close proximity to health care services, laboratories, hospitals, and emergency departments.

About the Yale AIDS Program, Liberty Community Services, and Connecticut Department of Correction Partnership

PROJECT mHEALTH was situated at the Yale University School of Medicine, Section of Internal Medicine, AIDS Program, Yale Clinical and Community Research, Community Health Care Van.

Yale AIDS Program

http://publichealth.yale.edu/cde/research/ghc/yaleaids.aspx

The Yale AIDS Program (YAP) is located within the Infectious Disease Section of Yale University. The program has a rich array of services, research and community outreach that includes Connecticut's largest HIV Clinic (Nathan Smith Clinic), an inpatient HIV unit at Yale-New Haven Hospital (Donaldson Service), both an adult and pediatric clinical trials program, the HIV in Prisons Program, the Community Health Care Van (CHCV), the state's largest HIV testing program and numerous social and community outreach services. The Community Health Care Van (CHCV), the core of our patient-centered medical home (PCMH), is an integral part of the YAP and has been directed by Dr. Frederick Altice. In 1993, CHCV became the first needle and syringe exchange mobile health care program in the U.S., and has been replicated both domestically and internationally. It is a user-friendly program that meets clients on their own turf in four distinct neighborhoods within the New Haven area. The 40-foot CHCV has an intake room, 2 exam and 2 counseling rooms, and a waiting area. The CHCV employs its own data department and database with information on all clinical encounters, including demographics, HIV status, drug use history, housing information, sexual risk history, and medical information as well as other variables. Anyone without recent HIV testing is routinely counseled and tested, resulting in the newest HIV diagnoses in New Haven. An outreach worker refers individuals who test positive for HIV to either the CHCV's family nurse practitioner provider or directly to the psychiatric/mental health nurse practitioner at a separate office site. Hence, two nurse practitioners are responsible for the daily integration and management of clinical care.

The HIV in Prisons Program is another integral component of the YAP and central to this program. It began in 1989, also under the direction of Dr. Altice. This program provides both clinical care services and conducts research. Through a contractual arrangement, the HIV in Prisons Program provides infectious diseases consultation services to many of the prisons and jails throughout Connecticut, including all of the infectious disease services at the New Haven Community Correctional Center (NHCCC, a.k.a. the New Haven jail). This program has been responsible for many of the pivotal studies that documented HIV prevalence and the correlates of HIV infection among incarcerated men and women, establishment of guidelines for HIV care within correctional settings, the benefits of antiretroviral (ART) within a correctional setting, correlates of adherence to ART, loss of benefit from ART after release from prison/jail, establishment and evaluation of the first transitional case management program for HIV-positive prisoners leaving prison, and development and evaluation of behavioral interventions for HIV-positive prisoners transitioning to the community.

> "The collaboration between Yale, Liberty Community Services, and Connecticut Departmentof Corrections was one of the most important components of this initiative.
>
> - Project mHEALTH staff

Connecticut Department of Correction (CTDOC)

Despite being one of the smallest states, Connecticut has the highest rate of incarceration in the U.S. The CTDOC is an integrated correctional system that has jurisdiction over all correctional inmates, irrespective of sentencing status or duration of sentence. Health care is similarly organized for both prisons and jails through the same provider. This system was developed to avoid the problems associated with differing standards of care from one community to another. There are five intake facilities (e.g., jails) and 13 facilities housing individuals with longer sentences (e.g,, prisons). The CTDOC average daily census is 18,902. Each of the 18 facilities has a infectious disease contact nurse (IDCN). The ICDN oversees the care for each HIV-positive prisoner, including discharge planning. Of the known HIV-positive inmates, the majority return to New Haven and Hartford. All HIV-positive inmates are referred to Project TLC (Transitional Linkage to Community, developed by Dr. Altice, now a service provided by AIDS Connecticut. See http://www.aids-ct.org/services.html for details.) to assist with discharge planning. Before this project, housing was not included in the transitional discharge plan. PROJECT mHEALTH expanded upon this discharge program and incorporated linkage to housing and peer navigation. Unique to the mHEALTH model is the hiring of a CTDOC referrals coordinator to assist with discharge planning and referral to PROJECT mHEALTH.

Liberty Community Services

The housing partner in this project was Liberty Community Services (LCS). LCS has provided services for people facing homelessness in New Haven for almost 30 years. The agency began operating in 1987 when a group of volunteers started the Connecticut AIDS Residence Program ("CARP") to house individuals with AIDS who were homeless. The agency's mission has since been expanded to ensure quality housing and support programs for the underserved. LCS has expanded its services to include people who are homeless for reasons other than HIV/AIDS but one of their core strengths is providing services and housing for PLWHA. LCS developed and continue to manage Connecticut's oldest freestanding HIV/AIDS supportive housing program. LCS has developed a continuum of housing and services for people living with HIV/AIDS. Those programs include:

- Transitional Living Program (TLP) - Twelve beds in shared suites in multifamily houses. Designed for PLWHA who are experiencing homeless and dually diagnosed. Maximum term = 24 months.
- Supportive Living Program (SLP) - Five beds in shared suites in a multifamily house. Provides permanent housing for people who are living with HIV who are experiencing homelessness.
- Independent Living Program (ILP) - Thirty-five units in scattered site apartments in the community. ILP provides permanent subsidized housing for PLWHA who are experiencing homelessness.
- Safe Haven Open Door Alliance - Eleven permanent apartments in LCS's Safe Haven building. Residents must be experiencing homelessness, living with HIV, and have a mental illness diagnosis.
- Housing First - Six permanent supportive housing subsidies that give priority to people who are living with HIV and who meet the definition of chronically homeless.

In addition to housing programs, LCS has two community outreach programs that focus on people at risk of HIV. LCS staff is trained to help individual clients enter drug treatment facilities to move to recovery and reduce their risk of contracting HIV and the risk to partners. LCS has been funded by the State Department of Public Health to conduct Outreach, Testing & Linkage (OTL). The program conducts outreach focused on high drug use neighborhoods, places where sex workers are, shelters, health fairs, through social media and at youth programs. LCS has a Ryan White medical case manager (RWMCM) to provide services to PLWHA in New Haven. The RWMCM works with clients to assess their needs, develop comprehensive long-term care plans, and refer them to appropriate services. In addition to these HIV-specific programs, PLWHA may access any of the

other programs at LCS provided they meet any other underlying criteria. These programs include:

- Safe Haven - Twenty-two units in LCS-owned buildings in New Haven. Residents must be chronically homeless and living with mental illness.
- Safe Haven Scattered Site - Thirteen scattered site units in the community. Residents must be chronically homeless and dually diagnosed.
- Open Door Alliance/Next Steps - Eighteen units in scattered site apartments in the community. Residents must be homeless with a mental illness.
- BH Collaborative -Outreach and intensive case management program for individuals who are homeless and in need of treatment but not connected to services.
- HUD Funded PSH through Shelter Plus Care - Thirty-three SPC subsidies are set aside for people case managed by LCS. People must meet the criteria for chronic homelessness and be referred via the Coordinated Access Network (CAN).
- Safe Haven Day Program - Access to basic services (such as showers, laundry, computer, and telephone) for up to 25 people per day who are living in shelters or on the street.
- LCS Women's Program - A gender specific, trauma-informed women's program is offered five to six days a week to women who are or have experienced homelessness.
- Public Library-based Case Management – A case manager is stationed six day a week (partial days) at the main public library, the default front door to the homeless services system. This is a source of many referrals to the project.

LCS has extensive knowledge of providing housing for PLWHA and has been funded through HOPWA formula grants since 1996. As New Haven's largest homeless service provider receiving grants through the HUD's Continuum of Care process, it is well-versed in HUD performance reporting. LCS's primary mission--to prevent and end homelessness by facilitating entry into and sustaining clients in permanent housing, --aligns with HOPWA and HUD objectives. LCS collaborates with organizations within New Haven in the areas of housing, HIV, and treatment of mental illness. LCS is an active member of the local, regional, and state network of AIDS service providers, housing provider networks, and substance use and mental health service provider networks.

"FIREFIGHTERS"

A fire breaks out and the emergency response team is on the scene. Time is of the essence--the problem will not wait for the responders, so the firefighters must always be ready for action. Upon arrival at the scene, the responder does not stop to ask whether the individual warrants rescue, or consider who's responsible, or if the fire was their fault and they should find their own way out. Their job is to protect the individual's housing so they may be able to lead stable lives.

At Liberty Community Services (LCS) the firefighters go by a different title: Network Navigators. They have been responding to the needs of the homeless population for almost 30 years. The movement began in 1987 when a group of volunteers started a program to help underserved individuals to add stability to their lives. PROJECT mHEALTH further solidified the relationship between Yale Clinical and Community Research and LCS. Bimonthly meetings to handle administrative tasks and to communicate client issues provide collaboration and continuity of services. Frequent communication through email, text, telephone, and face-to-face meetings keeps staff updated on client activities and needs. Staff at the two agencies work together to provide holistic, comprehensive services for all clients, regardless of their ability to pay.

We adhere to a "Housing First" model that posits that the provision of housing, combined with supportive social services, is the foundation for a successful outcome. With programs such as the Transitional Living Program, a now permanent shared living facility, quality housing is provided as an opportunity for those who have no other options.

Housing people who are homeless does not come without its own set of issues, however. Some people who are homeless have substance use or mental health disorders, and all have limited or nonexistent financial resources. Many lack the social support needed to stabilize the chaos in their lives. This is where the team at Liberty Community Services steps in to assure that the individual served is able to have the best quality of life and further partake in the continuum of housing.

The team at LCS is not there to solve their own problems, they are there for the individual served. The clients served by LCS staff come from diverse backgrounds, and the team is there to help regardless of the client's history. They are always on call and ready to respond to an issue. They do not add prejudice to the care they offer; they provide excellent service in a non-judgmental manner, from finding furniture for those recently housed, to a shower and a shave for those who have no other means. They are the heroes of a community without homes to burn down. They provide that community with the stability needed to improve their lives.

SETTING UP THE MEDICAL HOME MODEL

Staff Recruitment and Hiring

The staff needed to sustain the level of SPNS activity include a wide array of disciplines at Yale, CTDOC, and LCS. All Yale staff were already in place in different capacities prior to the initiation of PROJECT mHEALTH. A description of key PROJECT mHEALTH staff roles is included in the *Resources* section. Yale key positions included a family nurse practitioner and two outreach workers who provide services on the mobile medical clinic, which serves as the PCMH. The CHCV clinical director was a family nurse practitioner who provides primary care, screening for tuberculosis (TB), sexually transmitted infections (STIs), and hepatitis C virus (HCV), vaccinations (e.g., hepatitis A and hepatitis B virus, influenza), patient education, and referrals. The outreach workers provided a range of duties including, but not limited to driving the CHCV (they must have a commercial driver's license), intakes on all clients who arrive at the CHCV for services, obtaining specimens for urine toxicology screening and STI testing, performing rapid HIV and hepatitis C virus testing, acting as liaison with state and local health departments for reportable conditions, performing case management duties (e.g., communicating with the Department of Social Services, food stamps), arranging appointments and transportation with medical and behavioral health care providers, securing substance use treatment and detox, providing directly administered antiretroviral therapy and other directly observed therapy for TB, diabetes or other medical conditions, and liaisoning with probation and parole personnel and Liberty Community Services. Moreover, the two CHCV outreach workers were Early Intervention Services specialists funded through Ryan White Part A and they were instrumental in identifying newly diagnosed or out-of-care PLWHA.

A Yale Behavioral Health Care Team worked at a street-level office site termed the "storefront". This team consists of a psychiatric mental health nurse practitioner (P/MHNP), a licensed clinical social worker (LCSW), and a registered nurse who see patients by appointment and walk-in. The P/MHNP conducted mental health and substance use evaluations and provided treatment and referral, as appropriate. The site expanded capacity by working with fellows, advanced practice registered nurses, LSCWs and Public Health students. While clients were seen by appointment, walk-in clients were

often accommodated. The nurse practitioner prescribed medication-assisted therapies (MAT) for substance use disorders, (such as Vivitrol®, extended-release Naltrexone) and coordinated the Suboxone® (buprenorphine/naloxone) administration. Given the complexity and comorbidity of these clients, we felt that having an advanced clinician to function as the "glue" for the MAT program was preferable. Referral to methadone maintenance treatment (MMT) was provided based on patient preference and medical need. Treatment for mental illness or other substance abuse (eg,, alcohol use disorders or cigarette smoking) was provided. Our LCSW was a bilingual provider with over 10 years treating people with addiction and mental illness. He used a range of therapeutic modalities, including motivational interviewing and cognitive behavioral therapy. Our registered nurse assisted the P/MHNP and LCSW with the MAT program, provided assessments, and conducted chart reviews. All behavioral health specialists provided counseling and referral to clients.

At the CTDOC we hired a referrals coordinator who is a CTDOC employee with access to inmate records. She identified inmates who meet mHEALTH eligibility (outlined in the section on eligibility on pg. 19) and met with them to discuss the possibility of participation in the project. If the inmate was interested s/he signed a release of information to allow the referrals coordinator to provide us with the inmate's identifying information. The referrals coordinator further explained the project and got prerelease consent (approved by the Yale IRB and the CTDOC Research Advisory Committee). Upon release, the Yale intervention staff Research Assistant contacted the client to further assess eligibility, reconsented the client, and began the enrollment process.

The referrals coordinator was a key liaison between the CTDOC and Yale. She identified and located clients as they transitioned through the criminal justice system (i.e., prison, jail, and community supervision). She worked closely with the CTDOC HIV/infectious disease nurses and the discharge planners to assist in community reentry. Often an inmate's date of release fluctuated, and the referrals coordinator was able to relay this information in a timely manner. She used the CTDOC database to locate clients upon release and reincarceration.

"The referrals coordinator was a key liaison between the Connecticut Department of Corrections and Yale. Often an inmate's date of release fluctuated, and the referrals coordinator was able to relay this information in a timely manner.

- Project mHEALTH staff

Because the CTDOC database is public record, the Yale research assistants (RAs) monitored the database online to locate clients who required follow-up. At times, the referrals coordinator could find additional information from internal databases. This up-to-date information was essential for locating clients in need of follow-up.

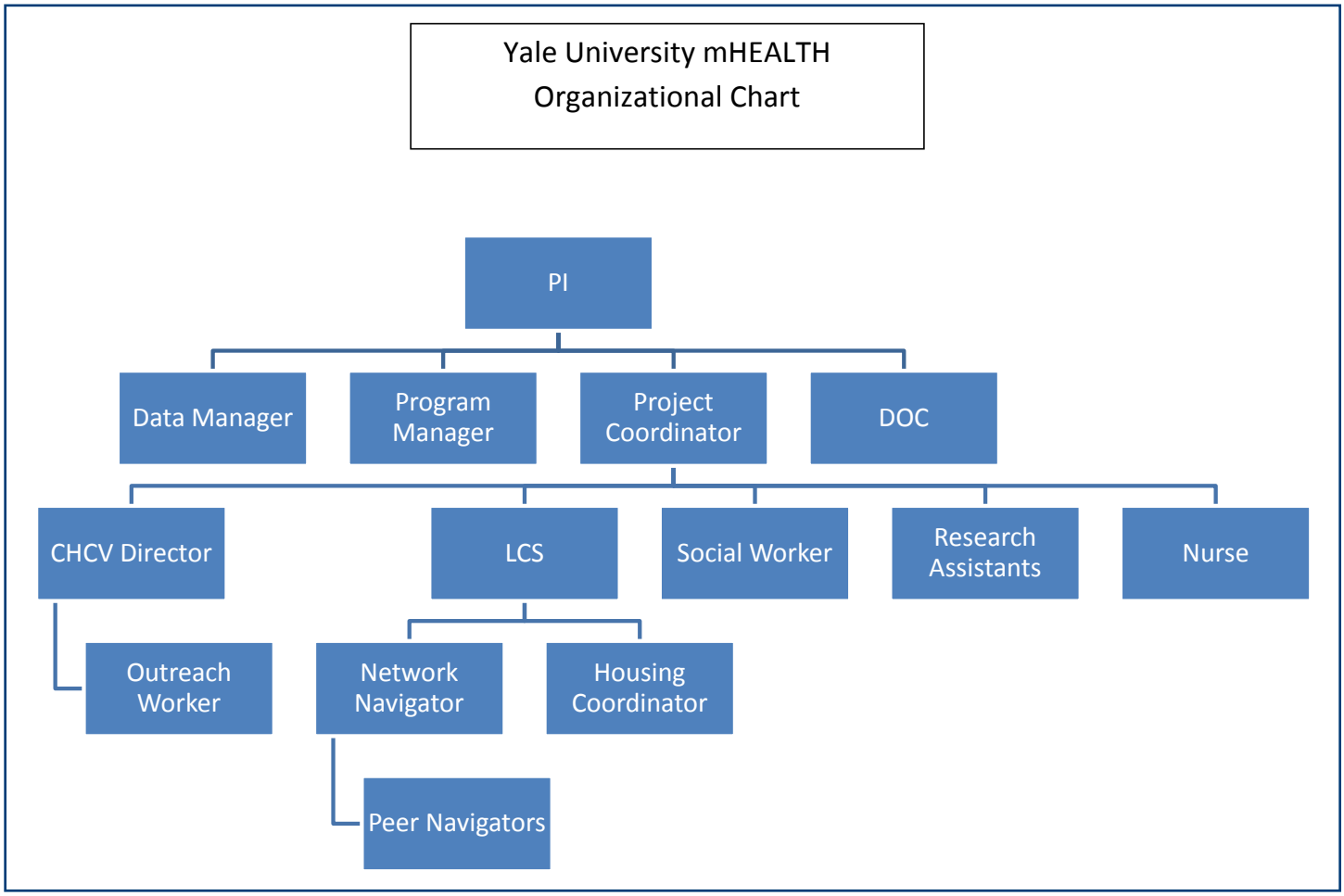
The Yale RAs were cleared to enter all CTDOC jails and prisons to conduct multi-site evaluation interviews upon reincarceration. Yale RAs continued to cooperate with the state Transitional Linkage to the Community (TLC) staff who worked with HIV-infected clients transitioning back into the community. Most linked with our outreach worker or Ryan White EIS staff to engage them in care. We also worked with the Transitions clinic, a community health clinic located in New Haven at the Cornell Scott Hill Health Center that provides medical care for recently released prisoners.

LCS had a program director in place who began to work on this initiative providing oversight and supervision. The new staff who were hired for this project included a part-time network navigator and peer navigators who provided case management and intervention services.

The program director was a resource for issues related to housing and case-management. She was knowledgeable about the community and experienced working with this client population. The network navigator assisted the clients with acquiring housing and stayed with the client navigating the social service system with applications for health insurance, food stamps, social security, employment, or disability. Some clients required more support than others, which the network navigator provided in the form of constant phone contact, text messages, face-to-face meetings, and transportation. Another important role of the navigators was to assist the client with the maze of the criminal justice system, including court appointments, and visits to probation and parole offices. The network navigator oversaw the peer navigators and was in constant contact with the Yale staff for coordination of services. The peer navigators played a similar role with the addition of working non-traditional hours (i.e., weekends and evenings) to provide optimal services to clients. The peer navigators had connection to the clients. They are considered "peers" because of their experience and understanding of the community. They are not required to be HIV infected, homeless or with a history of substance use or mental illness. They simply need to be affected by these conditions.

Training and Supervision

Ongoing training and certifications have been essential for keeping staff up to date on the latest techniques. The effectiveness of our staff has depended on the level and intensity of training provided on a continuous basis. Staff supervision and training has taken place at the agency level (i.e., Yale staff are supervised by other Yale staff and LCS staff are supervised by their own staff-- (see Organizational Chart below). At Yale, all programmatic oversight and supervision has been the responsibility of the program manager. Clinical supervision was conducted by the nurse practitioners.



All staff have been required to participate in Human Subjects' training. Yale University staff have additional requirements for training. For example, to provide transportation to clients, staff must take an on-line driver training class. Staff at Yale and LCS had multiple opportunities for training through Yale University (e.g., the AIDS Education and Training Center (AETC), YU's School of Medicine, Addiction Medicine rounds, the Center for Interdisciplinary Research on AIDS, and Dr. Altice's Research in Progress meetings), SAMHSA, and the SPNS Evaluation and Technical Assistance Center (ETAC). LCS staff participated in community workshops on a range of topics to include HIPAA Training/ Confidentiality, Information Technology Policy & Procedures, Personnel Policies, Bloodborne Pathogens, HIV & Hepatitis C Rapid Testing, PrEP, Fair Housing, Motivational Interviewing, Transgender Health Issues, Trauma-informed Care. Supervision, Mental Health First Aid, Overdose and Naloxone Education, Shelter Diversion, and Boundaries & Self Care. In each event, there has been a focus on feedback to improve quality of care and an acknowledgment that staff must engage in self-care to prevent burnout.

Preparing Stakeholders within Yale

Multiple programs at Yale work closely with the mHEALTH staff. Most are well-established partners such as the Ryan White Continuum and those listed below:

CT AIDS Education and Training Center
http://www.neaetc.org

The Connecticut AIDS Education and Training Center (CAETC), located at YAP is a satellite of the New England AIDS Education and Training Center (NEAETC), University of Massachusetts. CAETC's mission is to conduct targeted, multidisciplinary trainings for health care providers, disseminate information on a variety of clinical issues, and develop HIV provider materials. The goal is to ultimately enhance the competence and willingness of health care providers to diagnose, treat, and manage HIV infection and to offer interventions that will decrease the further spread of HIV infection. In this project, the CAETC provided training on HIV and HCV to the mHEALTH staff.

Yale Nathan Smith Clinic - Yale-New Haven Hospital
https://yalemedicalgroup.org/services/org.aspx?organizationId=109160#page2

Yale Infectious Diseases provides patient care and consultation for ambulatory and hospitalized patients with every variety of infectious disease. Specialized services are offered in such areas as traveler's health, HIV, and related disorders. Research explores such areas as microbial pathogenesis, pneumonia, and UTI in older adults; HIV; meningitis and international health; and nosocomial infections. Services include: central nervous system infections, fungal infections, nosocomial infection control and management. Distinguishing factors: expertise in treating infections in solid organ and stem cell transplantation, comprehensive AIDS care and prevention services for people living with and at risk for HIV, multiple observational studies and clinical trial expertise in the study of HIV, HCV, immunology of aging, pneumonia, pseudomonas, TB (including MDR), urinary tract infections, and vector borne diseases.

These specialty services are available to Nathan Smith Clinic patients and by referral from alternative care facilities. Nathan Smith patients are offered access to other specialty services by referral internally or externally.

mHEALTH clients received their HIV care on the CHCV or from one of the Yale New Haven Hospital (YNHH) HIV clinics. Through the use of our Electronic Health Record (EPIC) we are able to maintain continuity of care and ensure clients are linked to services.

Additional services provided in the Nathan Smith Clinic include, comprehensive primary care, prevention HIV care, HCV and HBV co-infection evaluation and treatment, mental health treatment, substance abuse treatment including Buprenorphine, HIV neurology evaluation, and HIV transplant evaluation The Nathan Smith Clinic is not only the oldest and largest HIV clinic in CT, but it has the infrastructure and the capability to provide leadership in the pursuit of excellence in HIV care delivery with the other members of the regional HIV continuum via sharing clinical protocols, best practices, research and education, as well as offering a continuity of care between inpatient and outpatient services. The clinic is a teaching site for infectious disease fellows and Yale primary care residents. It has a robust quality management program with ongoing monitoring of performance measures indicators and successful performance improvement projects. A second site is also located at the Haelen Center which is part of the Yale-New Haven Health Care System at the St. Raphael Campus. Both inpatient and outpatient services for people with HIV and AIDS are available through the Haelen Center, located in the Family Health Center at Yale-New Haven Hospital Saint Raphael Campus.

Preparing External Partners and Stakeholders

This project was connected with a wide range of stakeholders through work groups and associations.

Community Work Groups
We are part of a community work group that reviews cases of high utilizers of emergency department (ED) services to provide an alternative to ED use through our mobile medical clinic and PCMH without walls. This work group, the Community Care Team (CCT) of South Central Connecticut, is directed by Beacon Health Options of the Connecticut Behavioral Health Partnership. The group is comprised of partners in the community focusing on high cost/high need utilizers of the Yale New Haven Hospital system and regional programs. The local community intensive care managers and peer services in the community discuss practices to improve the client's behavioral and medical health, thereby reducing utilization of high cost and services in the community. The multidisciplinary team consists of Yale New Haven Hospital (emergency services, forensics team, psychiatric care managers, social workers, substance use care providers, intensive care managers and peer specialists), shelter providers, transitional living providers, crisis teams in the city, homeless service providers, and outreach teams. Our CHCV nurse practitioner attends the weekly meetings of the CCT to discuss clients who are heavy users of services. Frequently the clients who are discussed are well-known to the CHCV staff and the other community resources, including the Emergency Department.

This team is a participant in the National Governors Association of High Need/High Cost Initiative. The specific goal of this team is to improve the outcomes for high cost/high need members by optimizing their connection to care and supports in a positive, person-centered, and recovery-orientated manner. The team also strives to build networks of connections building collaborative relationships with the Medicaid network of behavioral health providers and all related stakeholders to identify system of care issues and plan and implement solutions.

Connecticut Department of Public Health
http://www.dph.state.ct.us/BCH/AIDS/HPAIDS.html

The Connecticut Department of Public Health (DPH) is the lead state agency in Connecticut for coordination of care and prevention services addressing the HIV/AIDS epidemic, as well as the control, monitoring and prevention of sexually transmitted diseases (STD), tuberculosis (TB), and viral Hepatitis (B and C). Six programs within the Infectious Disease Section are under the direct supervision of Connecticut's AIDS Director: 1) The Health Care and Support Services Unit (HCSS), which oversees Ryan White Part B care programs and services for People Living with HIV/AIDS (PLWHA); 2) The HIV Prevention Unit, which oversees prevention services and interventions for people infected

or at high-risk of HIV infection; 3) The HIV/AIDS Surveillance Unit, which oversees data collection on HIV and AIDS in Connecticut and is responsible for producing the state's Epidemiological Profile, as well as monitoring trends and emerging issues/populations; 4) The Sexually Transmitted Diseases Control Program, which investigates, screens and monitors the occurrence of STDs; 5) The Tuberculosis Control Program, which collaborates with health care providers and municipal health departments to conduct surveillance for TB disease and latent TB infection, screening, treatment, and control activities; and 6) The Hepatitis B and C Program, which monitors, reports, investigates and provides education, surveillance and information on viral hepatitis B and C.

Our mHEALTH team has worked closely with a range of CT DPH staff. The Ryan White Early Intervention Specialists and our CHCV Advanced Practice Registered Nurse (APRN) hold monthly meetings for the Ryan White EIS activities in the New Haven EMA. This committee is attended by CT DPH HIV staff who ensure people who are newly diagnosed with HIV or who are out of care are engaged in care. We have collaborated with the CT DPH Hepatitis Coordinator to stay abreast of new HCV grants, testing or treatment options, and activities. She has also provided free HCV point-of-care tests for use on the CHCV. The CT DPH staff also served as a resource for TB issues.

New Haven Health Department
http://www.cityofnewhaven.com/Health/index.asp

The mission of the New Haven Health Department is to create a healthy environment for its citizenry and to be the peoples' advocate in promoting essential public health endeavors. The Department ensures community involvement in conducting assessments, program planning and development; disseminates public health information; collaborates on public-private partnership activities; and ensures access to public health and medical services. All program services are offered at no or a nominal charge and are funded through the city's general fund and by grants. The New Haven Health Department coordinates the Mayor's Task Force on AIDS, and administers the Ryan White Office. The Ryan White Office oversees the coordination of Part A funding for core and supportive services for people living with HIV/AIDS in New Haven and Fairfield Counties. In this project, the CHCV staff have worked closely with the New Haven Health Department for submission of specimens for STI testing, reporting of new infectious diseases, and investigation of outbreaks (e.g., TB in a homeless shelter).

AIDS Project New Haven
http://www.apnh.org

AIDS Project New Haven provides education, non-judgmental comprehensive and holistic services to individuals infected and affected by HIV/AIDS. Its goals are to increase public awareness, promote prevention through educational programs and advocacy, and secure funding for the support services they provide for their clients.

Cornell-Scott Hill Health Center
http://www.hillhealthcenter.com/index.html

Cornell-Scott Hill Health Center is a federally qualified community health center established in 1968. The first community health center in Connecticut, the Hill Health Center has a long history of serving New Haven neighborhoods, which are among the poorest in the State. Hill Health Center is affiliated with Yale-New Haven Hospital and the Hospital of Saint Raphael. The staff provides a full range of care to include primary care, Obstetrics/Gynecology, pediatric, mental health, nutritional, dental care, laboratory services, and a pharmacy. The Center operates six school-based health and dental centers. Special programs include outreach to the homeless, birth-to-three services for developmentally delayed children; outreach and social/education to pregnant teenagers; an emergency food pantry; HIV/AIDS education and outreach to at-risk populations; a 25-bed SUDs detoxification program; and a child and family guidance clinic. Many mHEALTH clients received their HIV or primary care at the Hill Health Center. Our staff referred clients to specialists at the Hill Health Center and followed up with their care. Providers and case managers communicated about patients and coordinated care.

Fair Haven Community Health Center
http://www.fhchc.org

Many mHEALTH clients have received their HIV or primary care at the Fair Haven Community Health Center (FHCHC) Clinic and the CHCV and behavioral health staff refers clients to specialists at the Fair Haven clinic. FHCHC is a not-for-profit primary health care organization dedicated to serving the greater Fair Haven Community. Its mission is to provide excellent, accessible health care to the residents of the community, regardless of their ability to pay. FHCHC has been nationally recognized as a leader in collaboratively addressing health disparities and managing chronic disease. The clinical staff includes board certified physicians, nurse practitioners, physician assistants and certified midwives. FHCHC offers convenient social service and behavioral health counseling, on-site lab services, WIC program and wellness activities. Because Fair Haven Clinic uses the same EHR (EPIC) as YNHH and the CHCV we were able to communicate with their staff and ensure clients follow-up with their care.

APT Foundation
https://aptfoundation.org/

The APT Foundation Inc. (APT) is the largest substance use treatment network in the New Haven region Its mission is to promote health and recovery for those who live with substance use disorders and/or mental illness APT provides outpatient and residential substance use treatment, primary health care, outpatient mental health treatment services (including I.O.P), medication assisted treatment, family counseling services, and adult education & vocational services to all- including women with children, and those living with HIV/AIDS. mHEALTH clients with substance use disorders often received Buprenorphine or Methadone Maintenance Treatment at the APT Foundation.

RECRUITING CLIENTS INTO PROJECT MHEALTH

Eligibility

Eligible participants in PROJECT mHEALTH included:

1) Persons 18 years or older
2) Living with HIV,
3) Who are experiencing homelessness or unstable housing, and defined as one of the following:

- Literally homeless: an individual who lacks a fixed, regular, and adequate nighttime residence
- Unstably housed individual who:
  - Has not had a lease, ownership interest, or occupancy agreement in permanent and stable housing with appropriate utilities (e.g. running water, electricity) in the last 60 days; OR
  - Has experienced persistent housing instability as measured by two moves or more during the preceding 60 days; AND can be expected to continue in such status for an extended period of time.
- Individual fleeing domestic violence who:
  - Is fleeing, or attempting to flee, domestic violence;
  - Has no other residence; and
  - Lacks the resources or support networks to obtain other permanent housing.

4) Multiply Diagnosed: screened and determined to need treatment services for one or both of the following co-occurring conditions:

- Mental Illness(es): within the client's lifetime, any illness that significantly interferes with the performance of major life activities, such as learning, working and communicating, including, but not limited to: anxiety disorders such as post-traumatic stress disorder; and mood disorders such as major depression, bipolar disorder and dysthymia.
- Substance Use Disorder(s): within client's lifetime, any use of illicit drugs or the abuse of alcohol, prescription or over-the-counter drugs for purposes other than those for which they are indicated or in a manner or in quantities other than directed by a prescribing health care provider.

In addition to the above four eligibility criteria for the overall project, the client must have also met the following Yale eligibility criteria prior to receiving mHEALTH services:

5) Willing to work with our project partners, such as Liberty Community Services;
6) Residing in (or if recruited from DOC then released to) the Greater New Haven area, as defined by HUD[1]
7) Able to give informed consent; and
8) An English or Spanish speaker.

Clients who lived outside the area or were not willing to work with LCS were referred to other services and providers. If they had transportation they could receive medical and case management services on the CHCV and behavioral health services from our psychiatric nurse practitioner and LCSW.

Identifying Potential Clients

Screening Procedures

In this demonstration project, screening in the CTDOC was conducted by the DOC referrals coordinator. In the community, our EIS staff often began recruitment procedures. For anyone who was HIV negative or HIV unknown, but who met other eligibility criteria, they were invited to come in for HIV testing. If they test positive, staff invited them to participate in our project, go through the consent process in either English or Spanish (their preference), and take a baseline interview. All consenting participants signed a release of information for our team to communicate with other agencies and to review their health-care utilization in CareWare and EPIC. Each client provided detailed information via a PC using our standardized LOCATOR FORM that has been used in all of our projects in the past. After explanation of the services, the client was invited back to the site in New Haven for their baseline interview. All participants were provided with a resource guide for available community and healthcare services and instructed that they will have a number of follow-up interviews in 3, 6, 12, 18 months. In addition, enrolled clients began the process of working with the EIS staff, the network and peer navigator to ensure continued engagement in care. This was facilitated by YU's Research Assistant (RA) who provided contact information to the EIS worker on the CHCV and to LCS network and peer navigators.

For Newly Diagnosed Clients and New Clients

For new patients that came in to the storefront (270 Congress Ave), LCS, or the CHCV, standard procedures occurred: intake staff, case managers, or a clinician conducted intake assessment to determine services needed and make referrals to services.

Referrals

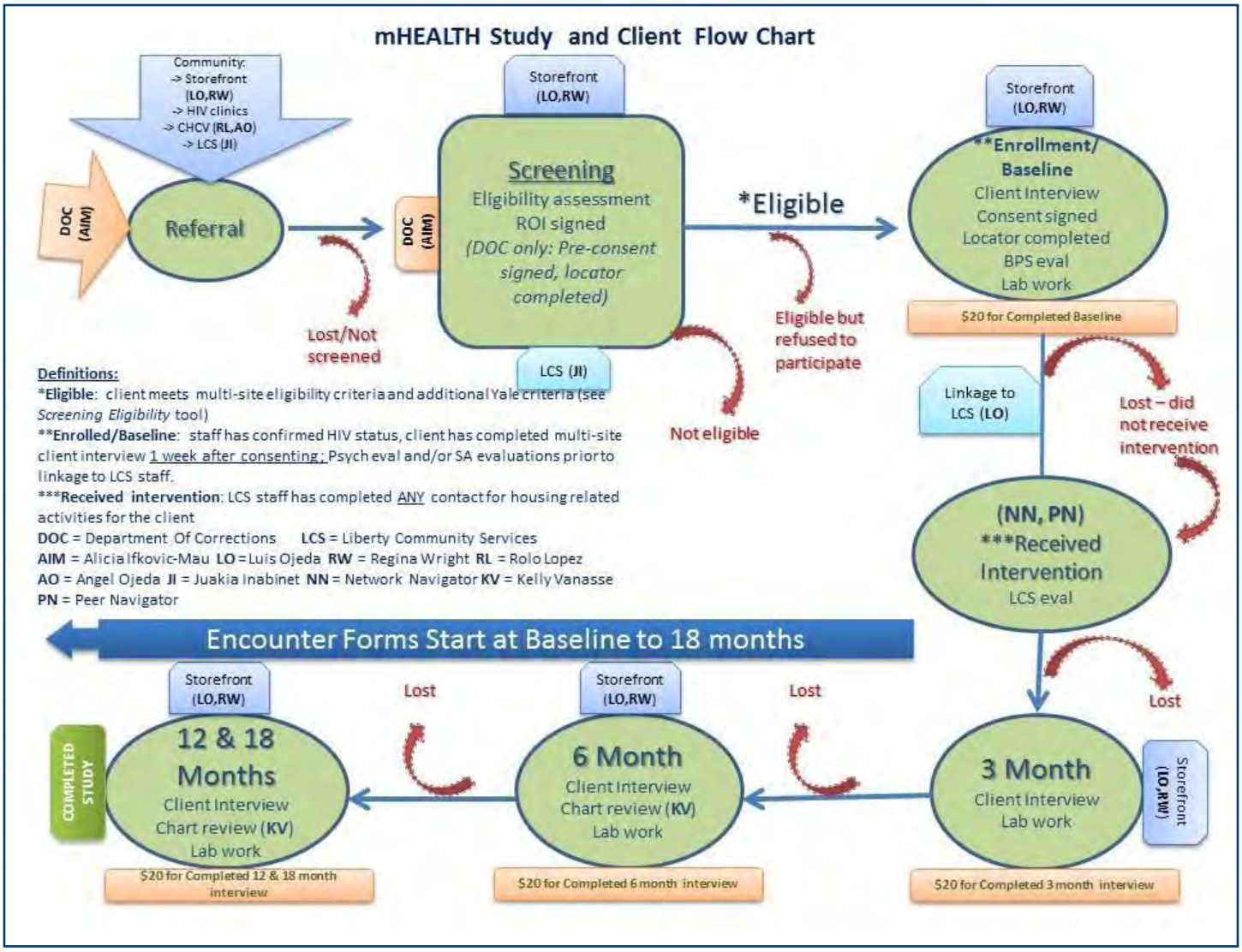
Referrals to the mHEALTH project were also made through partner agencies. The referral process included a completed referral form. The demonstration project had a total of 165 referrals during the recruitment period of mHEALTH. Referring agencies included the following:

Referred by	Number of Referrals
mHEALTH Team member	54
Alcohol or Other Drug Treatment Programs	4
DOC	37
CHCV	39
Client Self Referral	1
Emergency or Transitional Shelter Staff	1
Medical Clinic Staff	4
Other Social Service Staff	7
Other Hospital or Medical Clinic Staff	2
Other	16

[1]This includes the following cities: Bethany, Branford, East Haven, Guilford, Hamden, Madison, Milford, New Haven, North Branford, North Haven, Orange, West Haven, and Woodbridge.

Managing the Flow of Clients

The following flow chart shows how clients were managed.



SERVICE DELIVERY MODEL

Overview of Services

Our patient-centered medical home (PCMH) without walls model consisted of the following components working together to assess and address the needs of each client who enrolled in the mHEALTH project:

- A mobile medical clinic with a network of health care providers of comprehensive and coordinated medical, drug, and mental health treatment for PLWHA experiencing homelessness in New Haven;;
- The collective experience and expertise of the YAP and its community partners in developing and evaluating innovative interventions for medically and socially marginalized populations living with HIV. This has successfully been done by using an expanded network of services through all NHRWC agencies within New Haven to specifically meet the needs of PLWHA experiencing homelessness;;
- A team of experienced clinicians and researchers with ten years of continuous experience participating in SPNS activities (assuring the ability to comply with intervention development, implementation, data collection, collaboratively work with the Evaluation and Technical Assistance Center, and analyzing data and study dissemination)
- A team of clinicians with a minimum of 20 years of experience with the homeless population.
- Experience in adapting and implementing evidence-based interventions for homeless PLWHA to engage and retain them in a continuum of HIV Primary Care treatment through a new and expanded network of services (mHEALTH).
- Expanded and enhanced partnerships between YAP, Liberty Community Services and the CT Department of Correction (CTDOC) that provided new opportunities to improve entry into and retention in continuous HIV, drug and mental health treatment for homeless PLWHA.
- A Network and Peer Navigators to work with clients and assist with housing applications, negotiation with landlords, and securing housing.

Services Provided

Psychiatric Services

Behavioral Health (BH) Care at "The Storefront" was unique in its approach to providing psychiatric and substance use treatment and reducing barriers to care. BH treatment provided in an office setting expanded treatment to include complex individuals typically serviced via the CHCV. It was novel from many institutional programs for a variety of reasons:

1) Like the CHCV, it employs a nurse practitioner-directed care model;
2) Initial contact may be with a prescriber, avoiding the wait /delay in psychiatric care often seen in clinics whose protocol may insist on having 1- 4 sessions with a therapist first.
3) While we encourage appointments, we will see clients on a "walk-in" basis as capacity allows.
4) A vibrant medication- assisted therapy (MAT) program that offers both extended-release Naltrexone (Vivitrol®) and Suboxone provides individual attention versus group counseling, and is inter-professional
5) Along with the CHCV, there is active participation in an intra-agency monthly meeting that targets high medical service utilizers to assist with community planning for complex individuals.
6) Same day acceptance of all clients referred from Yale HIV clinics for either MAT or psychiatric care;
7) Capacity was expanded by utilizing advanced practice nursing students, public health and social work students, medical students, and infectious disease fellows.
8) The approach is based on a philosophy that places an emphasis on building long-term relationships with clients, through all phases of illness.

All clients provide a psychiatric history and those in need of medication management or who expressed interest in MAT met with the psychiatric nurse practitioner for further evaluation. Psychiatric care was based on guidelines established by the American Psychiatric Association's Practice Guidelines, found online at: http://psychiatryonline.org/guidelines.aspx.

Mental Health and Substance Use Disorders Counseling

If a client indicated motivation for counseling, the assigned counselor met with that client within 7 days of the initial baseline evaluation. Based on client needs, a variety of theoretical models were utilized to individualize patient care. These may have included developmental theories, Interpersonal Theory, Motivational Interviewing, Recovery concepts, Cognitive-Behavioral Therapy and Dialectical Behavior Therapy. Counseling sessions can be identified as needed on a weekly or biweekly basis.

- The minimum counseling for those on MAT was one meeting per month in addition to the monthly meetings with the medical staff.
- Clients could opt to build a treatment plan that included non-traditional venues for recovery development, i.e., yoga, sports, volunteerism, art, etc., if it could be monitored and measured by the counselor through self-report or discussion with the counselor.
- Clients opting for substance use counseling were encouraged to meet at least twice per month and could meet as often as five times per week.
- All clients were expected to identify some type of support system for their recovery and define how that system would assist in their recovery goals. The client could select traditional modes such as Alcoholics Anonymous, Narcotics Anonymous, Rational Recovery, or select nontraditional modes such as a church, church study groups, online chat groups, or vocational rehab.
- Phone contact as an extension of care was offered in which the counselor and client would have minimal interaction of at least 1 phone contact per month, in addition to the counseling visit.
- All counselors also took an active role in communicating with community providers to coordinate care, refer upon completion of the program, or advocate for clients' needs.
- Clients interested in a Methadone Maintenance Treatment (MMT) program were referred to an MMT provider in the area.

The multi-site chart review documented the following mental health and substance use counseling referrals for mHEALTH clients:

Chart Review	Mental Health		Substance Use Disorder	
	# Referrals	# with 1+ visit	# Referrals	# with 1+ visit
6 months	53	47	44	39
12 months	15	14	18	17
18 months	14	14	15	15

Harm Reduction Strategies

- Condoms were readily available on CHCV and the storefront.
- The CHCV worked closely with the Public Health Department's mobile van to conduct a needle/syringe exchange program.
- Screening, treatment, and vaccinations were offered for sexually transmitted infections, hepatitis B and C virus, and other infectious diseases.
- Referrals were made to area resources for Intimate Partner Violence and other trauma.
- All clinical staff offered trauma-informed care approaches.
- Clients in need of infectious diseases counseling were referred to our medical staff.

The Role of the Network and Peer Navigators

The network navigator, employed by Liberty Community Services, was responsible for conducting a housing assessment during the admissions process. The housing assessment included the identification of all currently available providers. Furthermore, the assessment process aided the network navigator in the identification of long-term services for which the client was potentially eligible. Peer navigators were also hired by Liberty Community Services to work directly with clients at times that were convenient for the client (i.e., including evenings and weekends).

- The network navigator and/or peer navigator offered referrals to housing, and other services and/or programs for which the person served is eligible, including SSI, SNAP, or other entitlement benefits.
- The network navigator and/or peer navigator collaborated to secure the necessary authorizations to:
  - Establish strategies for communication and service planning.
  - Identify the roles and responsibilities for each provider.
  - Share/receive information.
  - Staff activities: The frequency of staff meetings with clients was quite variable, based on the needs of the client.

All clients were followed for 18 months unless they were lost to follow-up, refused to remain in the program, or were incarcerated. Clients were transitioned out of the program once their housing and other needs were sufficiently met. LCS navigators continued to meet with clients, as needed.

Tangible Reinforcements

To maintain engagement, the project provided tangible reinforcements such as food, clothing, and hygiene kits to clients, as needed. Staff put together "goody bags" with toiletries, hats, gloves, and socks for clients during the December holiday season. We leveraged Ryan White funds for food vouchers for a local grocery store. These were given to those clients with a demonstrated nutritional need according to criteria established by Ryan White funding. During the winter months we had packets of instant hot chocolate available. We also tried to offer small snacks such as granola bars or packages of crackers available for clients in our waiting room. Until recently, the project collected used clothing and provided them to clients, particularly those who were recently released from correctional facilities. Clients enrolled in mHEALTH received a gift card for Walmart

that could be used to purchase hygiene essentials. Staff also prepared kits of different supplies that have been donated by the staff and some merchants.

Measuring Client Acuity

When clients enter the mHEALTH project, we assessed their need for services using the following tools.

HIV Acuity Scale: We used a standardized HIV Case Management Medical Acuity Scale that was developed in accordance with CareWare (see http://www.michigan.gov/documents/mdch/FORM_-_ Client_Acuity_Scale_Worksheet_1_225816_7.pdf) to measure acuity on all subjects. The Acuity Scale serves as the basis to developing service plan objectives. The scale incorporates five life areas (basic needs, medical care, physical environment, family environment, medical and medication assistance). Acuity level is assigned from 0 to 3, depending on the number of points scored (0 to 99). The score is calculated at each time point and analyzed using a generalized estimating equation. The intensity of the mHEALTH interventions (number of sessions, number of obstacles overcome, etc.) were plotted against the Acuity Scale to assess the intensity of a needed intervention to achieve the proposed outcomes (e.g., housing, retained medical care, etc.).

VI-SPDAT and SPDAT: The Coordinated Access Network (CAN) requires that there is a uniform intake assessment for all people seeking shelter or experiencing homelessness. The VI-SPDAT and SPDAT tools are used nationally to identify risks around chronic illness, prior hospitalization, experience with the criminal justice system, lack of access to care, lack of social support, disengagement in care, trauma history, use of crisis services, and housing history.

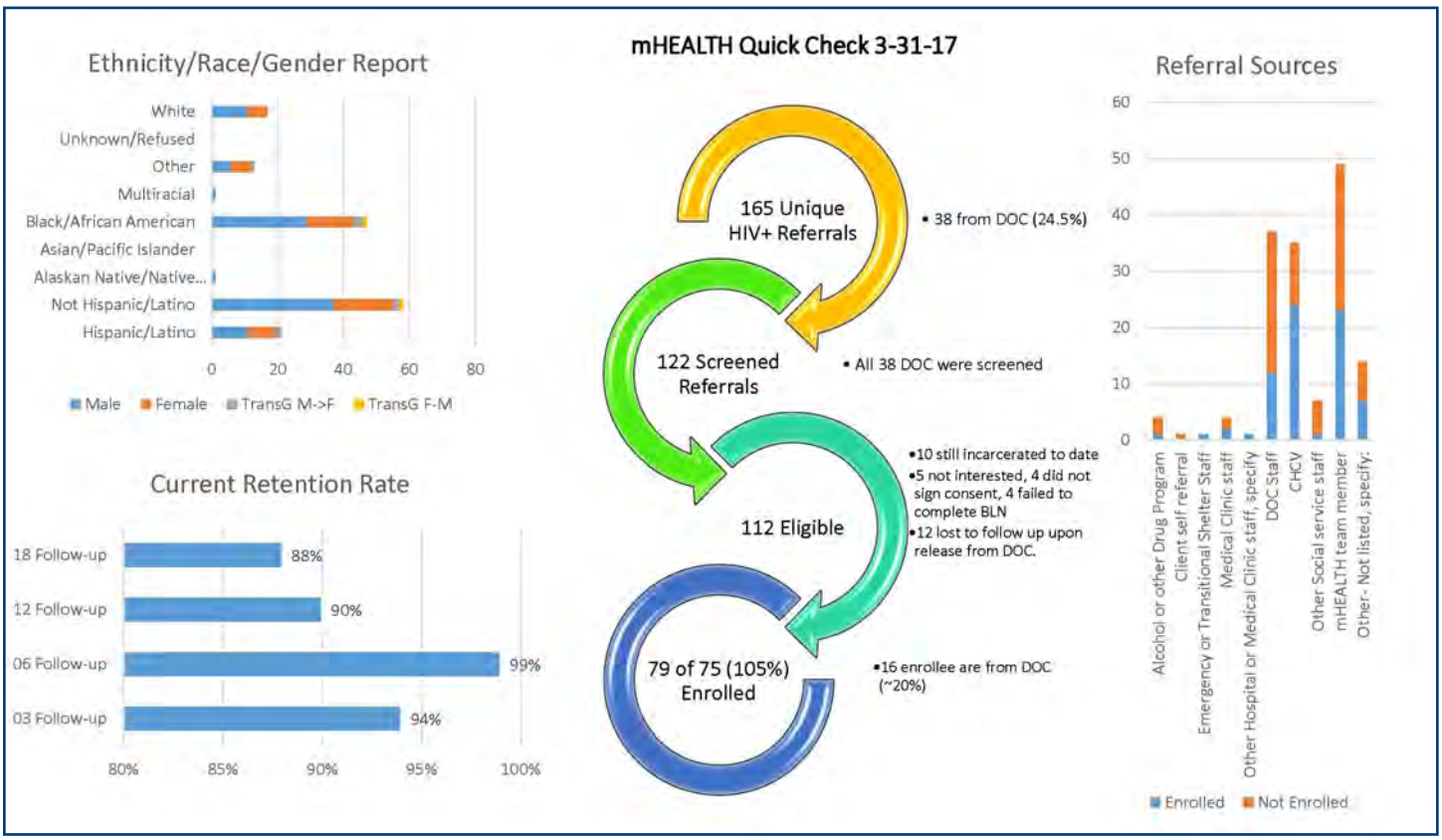
Communication at the Community Level

Staff community involvement was essential for communication with stakeholders and community partners. Our CHCV staff participated in Ryan White Planning Council meetings, the New Haven Mayor's Task Force on AIDS, Yale-New Haven Hospital ED committee for high users of emergency department services, RW HIV case managers' meetings, and formerly, the Greater New Haven Opening Doors Steering Committee (which has been temporarily suspended until its mission is clarified). Our CHCV EIS/outreach worker also communicated often with CTDOC staff and probation and parole officers. Our CHCV Clinical Director is chairperson of the New Haven RW Continuum EIS committee.

> "The Acuity Scale serves as the basis to developing service plan objectives.
>
> - Project mHEALTH staff

Communication among Project Staff

Yale, LCS, and CTDOC convened bi-monthly meetings to discuss administrative updates, data collection, quality improvement, and client issues. Our data manager/evaluator produced dashboard graphs with the number of referrals, enrollments, and retention to monitor project progress. Discussions regarding specific clients occurred much more frequently via email, text, or phone between navigators, case managers, clinicians. and intervention staff, as needed. The project coordinator sent weekly emails to all mHEALTH staff to provide them with an update on the status of each client. He continued to provide these updates and to notify staff of client needs (eg,, tuberculosis test, physical exam, counseling appointment) or if they had been incarcerated, hospitalized, or lost-to-follow-up. These regular updates allowed staff to keep abreast of problems and activities and provided enhanced communication allowing staff to work together to maintain a high level of services and retention. An example of the dashboard appears on the next page.



Transitioning to Standard of Care

During later stages of the demonstration, the project followed a transition to standard of care plan developed by LCS. Under the plan, after 18 months of mHEALTH services, clients continued to receive ongoing medical and behavioral health services through CHCV and established behavioral health providers. All clients who had medical case management through AIDS Project New Haven, Nathan Smith Clinic, or Fairhaven Health maintained those relationships with support from LCS's network navigator.

Transition and Discharge Planning

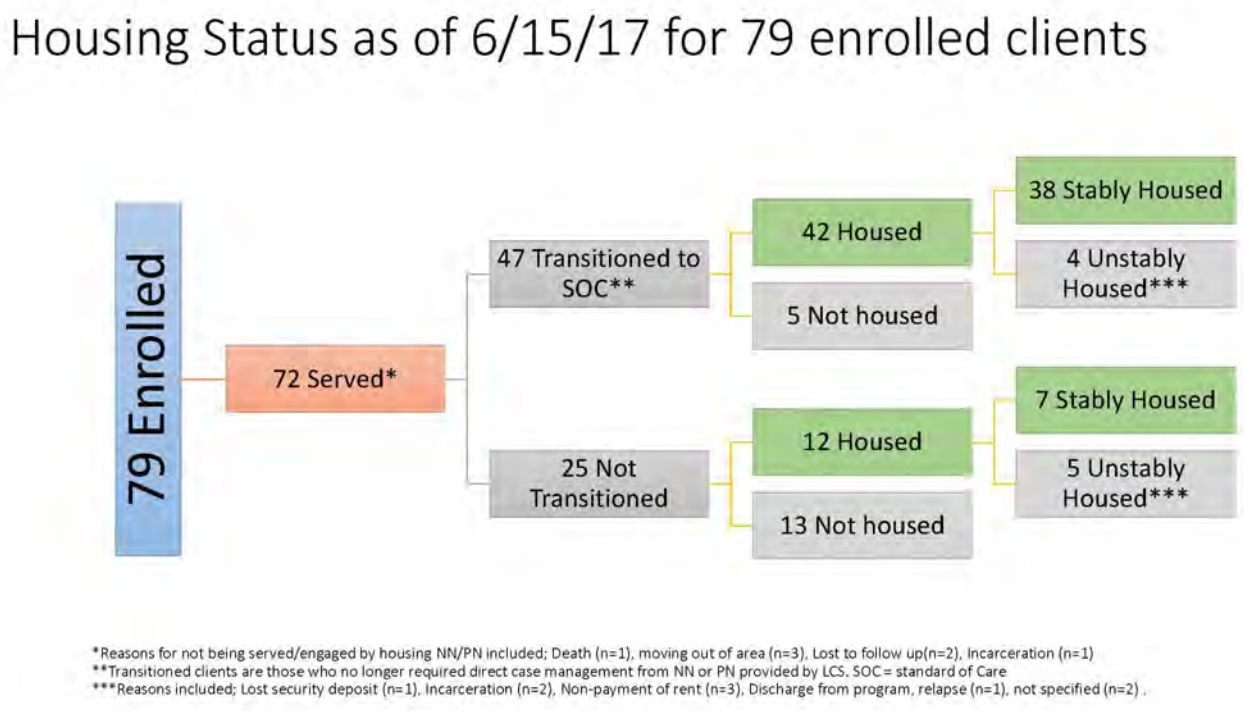
Throughout the mHEALTH project, network navigator and peer navigator services were intended to be transitional. Their interventions focused on assisting persons served to secure housing and long-term support services to remain housed. The intervention was in place for a maximum of 18 months. Thus it was imperative to begin the process of transition upon admission as the chart on the next page indicates. See the *Resources* section for links to the mHEALTH transition protocol and checklist.

> "Throughout the mHEALTH project, network navigator and peer navigator services were intended to be transitional. The intervention was in place for a maximum of 18 months.
>
> - Project mHEALTH staff

Intake through Transition

Because mHEALTH is a short-term, high intensity intervention, network and peer navigators plan for stability beyond the end of the project from day one. The steps in the process of working with a client are outlined below.

Steps	Description
Intake	Network navigator conducts a housing assessment during the admissions process including identification of all current providers. The assessment process aids the network navigator to identify long-term services for which the person served may be eligible
Service Planning	Network navigator and/or peer navigator collaborate with the client to develop a service plan that must address, at a minimum, health, housing and income.
Referral	Network navigator and/or peer navigator make referrals to housing, services and/or programs for which the person served is eligible.
Collaboration	Network navigator and/or peer navigator secure the necessary authorizations to: a. Establish strategies for communication and service planning. b. Identify the roles and responsibilities for each provider. c. Share/receive information.
Transition	No later than the 18th month of providing services, the network navigator and other involved providers transition responsibility for services that assist the person served in remaining housed. Length of time working with a network navigator depends on the person's needs: mental health, substance use, ability to stay connected to care, and all-around stability. Services include but are not limited to: benefit redetermination applications, energy assistance applications, regular face-to-face contacts, etc. Responsibility is transferred to providers and persons served are eventually discharged from services of the network navigator/peer navigator.
Discharge	A discharge summary is prepared collaboratively with the person served and providers which identifies the responsibilities of the person served and the providers.
Follow-up	The network navigator/peer navigator maintained at least monthly contact with the person served and key providers for 90 days post-discharge. The purpose of follow-up was to ascertain the effectiveness of the transition plan to keep services and housing stable.



Documentation

Data were documented in the following sources:

- EMR – Beginning July, 2015 Yale clinical staff, including our CHCV nurse practitioner, BH staff, and RN, used the Yale-New Haven Hospital electronic medical records (EMR) System, EPIC. Use of EPIC allowed the staff to bill for services which improved sustainability of the program. EPIC was used by all area hospitals and most Federally Qualified Health Centers. This integrated EMR provided continuity of care between all providers. Staff were able to look up provider visits, clients' current medications, and laboratory results. Moreover, they were able to receive messages from providers and refer clients to other providers and specialists, essential for communication and improved patient care. EPIC also tracked emergency department visits and hospitalizations.
- Case notes – Case notes were entered into EPIC and into each client chart. The project maintained charts for all mHEALTH and Ryan White clients. Case management notes were written on CareWare forms. BH staff charted using EPIC and on a biopsychosocial form. LCS navigators wrote case notes in individual client charts and also on encounter forms as part of the multisite evaluation.
- Other data management systems – The project used CareWare for Ryan White clients' data. CareWare data were collected by Outreach/EIS staff and entered into the system by a data assistant. She was the only person in our office who was able to access these data, and could share them with other Ryan White providers who used CareWare. Periodic reports were produced and provided to the Ryan White Continuum. HMIS (Case Worthy) data were collected by housing providers and accessed and managed by the CT Coalition to End Homelessness. Although the data were available to access they have not yet been accessed by mHEALTH staff. Eventually aggregate data from all housing providers in the area will be available. Our data manager/evaluator created a Qualtrics database for referrals, locator, and supplemental forms. These data are available for review and analysis by all staff.

Network navigator supports Jim on his way to stable housing

Becoming a part of a medical home has allowed Liberty Community Services (LCS) in New Haven, CT, to better serve and house their clients in a substantially shorter time frame. No longer do clients wait weeks to receive necessary documents from medical providers and clinicians. The success of this one-stop shop model can be highlighted through the story of a housed client, Jim.

A little about Jim…Jim had no income, no benefits, had been homeless since 1974, had multiple felony convictions, and was a sex offender (charged with sexual assault in the first degree). He needed a hip replacement and had long history of heroin addiction and depression (last detox was in November 2013). So there was a lot going on with Jim. How did Liberty help?

Liberty provided the network and peer navigators to this project. Sara, the network navigator, initially assessed Jim's housing needs and worked with him to establish a plan to secure housing. That plan included applying for Section 8, permanent supportive housing programs, Social Security Disability and SNAP (food stamps). The applications required securing substantiating documents and records from as far back as his first episode of homelessness. Sara was instrumental to this process.

Although registered sex offenders must report to the State Department of Public Safety (DPS) regularly (even if their address has not changed), Jim had failed to file this documentation specifying where he was staying. After learning Jim had been noncompliant with requirements for registered sex offenders, Sara contacted the officer in charge of the registry to learn exactly what Jim would have to do to become compliant. She then explained the steps to him and helped him complete and fax the report to DPS. She set up a reminder system with Jim to make it easier for him to comply going forward.

Utilizing the strong relationships with other providers and agency personnel, Sara was able to assist Jim in reapplying for a Shelter plus Care voucher, which he later received. Sara reminded Jim that he had to have realistic expectations as he began the housing search. He would need a first floor apartment, with utilities included, and a studio would be a size he could maintain since he needs a hip replacement this year. Sara had developed a great relationship with various landlords who have many multi-unit buildings and were flexible when it comes to housing persons with complicated pasts. Thanks to the great relationships Sara had developed with landlords, housing sex offenders like Jim was possible. Though this first housing placement may not be Jim's ideal location, it was a step in the right direction. As Jim builds a positive housing record, he may move into other units that could ultimately become his forever home.

Jim's willingness to participate and engage in his own treatment and recovery process were assets in this entire process. Additionally, having transportation services available to ensured that Jim makes it to his appointments and meetings help to keep him engaged. After working with PROJECT mHEALTH for six months, Jim was on his way to stable housing!

Steps in the right direction

You count a lot of steps in prison. The cell is six steps long and four steps wide. To the end of the cell block is forty steps, and from there to the cafeteria is another hundred. To the prison yard is another sixty steps which may be a roomy three-hundred-by-three-hundred-step square of relief. From the yard, the way back to the cell is the same way you came. It is the same thousand step walk each day for six years until the day you get out.

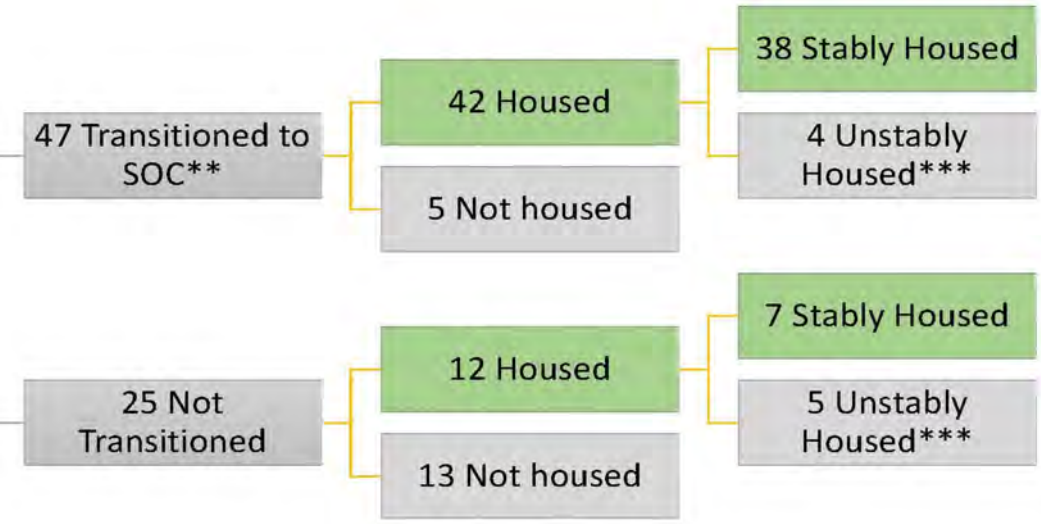
For many, that day is not always what you would expect. From the prison gates there are an endless number of steps in any direction. Suddenly, freedom isn't comforting, it's intimidating. Where do you start, which direction is the right direction, which direction is the nearest bed and meal, and does that direction return you to jail or prison?

It can be challenging to make a new life for yourself on the outside with few or no resources or support. Currently housing is not included in the transitional discharge plan offered by any of the 18 intake facilities for HIV+ prisoners. The stress of not having housing makes community reentry challenging, especially for people with substance use disorders and mental illness, who are in need of services. Criminal justice history further limits your ability to obtain housing and employment. Without proper housing, it is impossible to expect one to live a stable and productive life.

This is where mHEALTH came in: the program improved overall stability by linking newly released prisoners to Network and Peer Navigators for housing services and the CHCV for physical and mental health care and substance use treatment.

The project established a unique partnership with the Connecticut Department of Correction (DOC). The
Connecticut DOC is an integrated correctional system, one of the few in the country, where all facilities are managed by one centralized administration. Healthcare was similarly organized for both prisons and jails through the same provider. This was developed to avoid the problems associated with differing standards of care from one community to another.

Yale's AIDS Program had been collaborating with the CTDOC for over a decade, conducting research within the facilities, recruiting clients, and meeting with inmates. In mHEALTHwe established a contract with the DOC which included hiring a Referrals Coordinator, a DOC employee, who identifies potentially eligible participants, meets with the inmate, screens him or her for eligibility, obtains pre-release informed consent, and then referred the client into PROJECT mHEALTH. The CTDOC Referrals Coordinator notified the Yale staff when the client's release date was nearing and preparedthe inmate to contact the Yale staff upon release. If possible, the Yale Research Assistant went to the facility prior to the inmate's release date to discuss the program and to remind the client to come to our office upon release. Our Research Assistants have been cleared to enter all jails and prisons to conduct interviews if an enrolled client is reincarcerated, improving retention in research. Another unique aspect of our program was the relationship between our clinical nurse and the DOC. The nurse was responsible for conducting chart reviews for the Med-HEART multi-site evaluation and she was able to obtain all medical record information from the DOC, improving data completion.



EVALUATION AND QUALITY IMPROVEMENT

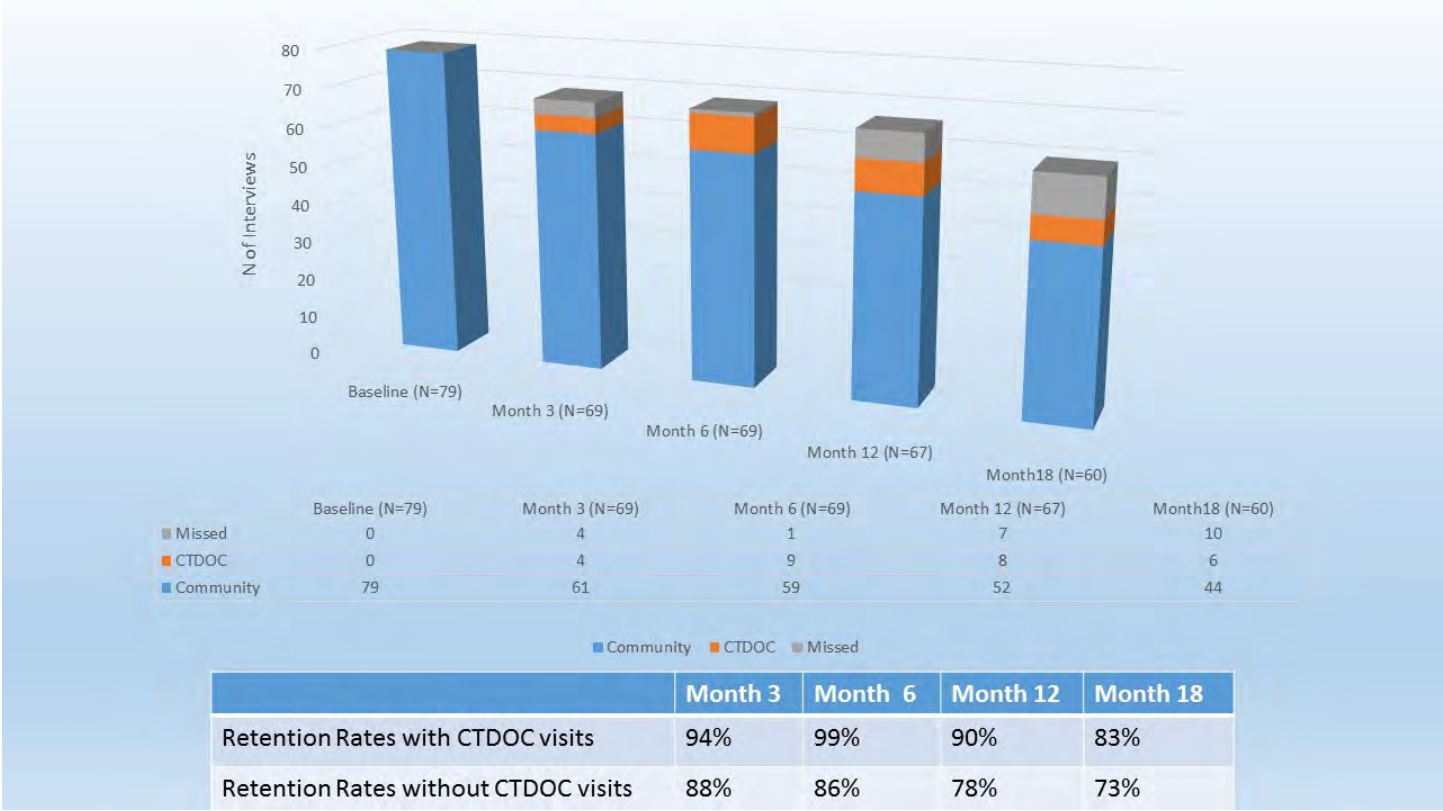
Evaluating the Unique Enhanced Partnership with CTDOC and YAP Team

System building is crucial when creating a PCMH for the homeless population. In mHEALTH, building a system that incorporated CTDOC was particularly important because of the interaction that takes place between the homeless population and CTDOC. For this reason, the mHEALTH team set out to assess the utilization of the uniquely established relationship between DOC and YAP by monitoring retention in care as well as in study while clients were in CTDOC. The outcomes of this evaluation are presented on the next page.

As a result of coordination among staff especially the RA and network navigator with CTDOC referrals coordinator and other CTDOC staff, mHEALTH was able to leverage the relationship to capture more interviews while clients were in CTDOC. These allowed more information to be found and continuation of engagement with the client while in CTDOC. This also improved our retention in the study as shown in the figure above.

In addition to interview completion in CTDOC, access to CTDOC's EMR was made possible through an established working relationship. This facilitated chart review completion and allowed our staff to further ascertain the level of care and engagement each enrolled client obtained while in CTDOC. Together, the CTDOC and YAP relationship continued to play a crucial part in maintaining continuity of care and engagement for clients as they transition from CTDOC back to the community.

Data Collection and Reporting for the Local Evaluation



	Month 3	Month 6	Month 12	Month 18
Retention Rates with CTDOC visits	94%	99%	90%	83%
Retention Rates without CTDOC visits	88%	86%	78%	73%

Caption: Coordination between staff at Yale AIDS Program and the CTDOC resulted in significantly higher retention rates in HIV care among clients.

PROJECT MHEALTH IMPACTS

The collaboration between Yale, LCS, and CTDOC was one of the most important components of this initiative. The positive relationships among staff have been extended to additional collaborations on other grants and community projects. We work together to ensure that clients receive the highest level of care possible. We have learned from each other and we continue to teach each other in our respective disciplines.

As a result of the enhanced partnership between YAP and CTDOC, future studies and services have been extended to further evaluate clients while in CTDOC and engage them when they return to the community. Studies that built upon the PCMH without walls model established by PROJECT mHEALTH include a SAMHSA-funded study **mCHARTS** that aims to support people at risk of or living with HIV who are transitioning from jail/prison to gain access to stable housing and quality medical and behavioral health care. Moreover, additional SAMHSA funding proposals are being written in collaboration with other PIs, CTDOC and local community service partners to build upon the PCMH without walls model evaluated through PROJECT mHEALTH that address housing needs of this population. The rooted presence of YAP and the CHCV, the implementation of the electronic medical records, and billing for services has greatly improved sustainability of the program. Services such as mental health and substance use disorder treatment provided through the CHCV are now billable, allowing for continuation of care and enhanced collaboration with community partners post study. Overall, the sustained buy-in by the CTDOC partners and local community partners has enabled the mHEALTH team and its partners to expand and enhance services to PLWHA experiencing homelessness in the New Haven area.

RESOURCES

The following resources from the Project mHEALTH model can be found on the Center for Advancing Health Policy and Practice website. All resources from the initiative Building a Medical Home for Multiply Diagnosed HIV-Positive Homeless Populations can be found on the web at http://cahpp.org/project/medheart/resources

SETTING UP THE MEDICAL HOME

- Logic model (.docx): describes the expected outcomes of the components of the medical home model
- Job descriptions (.docx): A brief description of mHEALTH staff roles

SERVICE DELIVERY MODEL

- Transition
    - o Transition and discharge planning policy (.pdf): describes the policy the network navigator and peer navigator use to assist people as they become stably housed and transition out of PROJECT mHEALTH
    - o Transition checklist (.docx): Liberty Community Services used this checklist to assess the housing readiness of a client
- Resources for clients
    - o Liberty Job Seekers Blog: http://libertycsjobs.blogspot.com/
      This blog provides links to resources that a job seeker may need as well as regular postings on job opportunities. There are documents guide people in writing resumes and links to online education for job seekers. Additionally, the blog includes links to transportation and basic needs.
    - o Liberty Women's Resource Blog: http://libertycswomen.blogspot.com/
      Unique to women served by Liberty.
    - o Liberty Prevention Blog: http://lcshivprevention.blogspot.com/
      This blog will become more active as we have hired a fulltime HIV Prevention Specialist. He will be providing education on PrEP, risk reduction and other germane material for the community.
- Resources for line staff
    - o Greater New Haven Regional Supportive Housing Program Blog:
      http://nhregionalsupportivehousing.blogspot.com/
      Information for providers and consumers alike. It is a one-stop for supportive housing information, eligibility, shelter, etc.
    - o Library Office Hours Blog: http://libraryofficehours.blogspot.com
      Specifically for line staff, this blog is easy access to information and referral for clients in need.

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